applies if the entire hive is turned about. On the other hand, if the hive is laid on its side, the runs are then oriented directly towards the food supply and the bee will continue to run towards that same direction, in space, even though the hive be rotated horizontally.

Finally, experiments were devised that demonstrated beyond question that a dancing bee's hive-mates really act on the information received and do search diligently in the direction and at the distance suggested.

Altogether, this paper of von Frisch, like his earlier works, is a perfect example of good scientific writing; it is carefully organized, crystal clear and very readable. In it he allows us to accompany him, so to speak, along his path of discovery. He traces for us his ideas and early experiments that proposed the problems. Then, for each part of the work, he outlines the inductive reasoning that reveals the new hypothesis, and the deductive thinking that suggests to him all the possible conditions that must obtain if his hypothesis be true, and, finally, how he devised and carried out the crucial experiments.—R. G. Schmieder.

The Distribution by States of United States Insect Collection Records. Any one who has studied the distribution of North American insects knows that there are extensive lacunae in the data, even as regards the United States. In order to determine the extent and location of these "blind spots," the writer compiled the number of State records cited in 108 synoptic or revisional papers wherein the distribution of the various species was given in sufficient detail. All too frequently the distribution of a species is cited as "east of the Rocky Mountains" or "Connecticut to Illinois and southward." Such citations mean very little. The 108 papers were all published during the present century and are divided among the various orders as follows: Coleoptera, 23; Diptera, 16; Hemiptera Heteroptera, 6; Hemiptera Homoptera, 9; Hymenoptera, 27; Lepidoptera, 7; Orthoptera, 6; miscellaneous (ten orders), 14.

The number of species cited for each State may be tabulated as follows:

N. Y. 1222	Md. 538	La. 266
Texas 1152	Ore. 530	Nebr. 265
Colo. 1092	Utah 521	Ala. 241
Calif. 1060	Ga. 489	S. D. 236
Ariz. 1036	Ohio 474	S. C. 222
Fla. 801	D. C. 466	Tenn. 196
Pa. 753	N. H. 428	Miss. 185
Ill. 744	Maine 423	Ky. 170
Mass. 744	Iowa 371	Okla. 163
N. J. 712	Idaho 365	W. Va. 133
N. M. 677	Mo. 330	Ark. 130
N. C. 654	Mont. 324	Vt. 125
Va. 636	Conn. 320	R. I. 121
Kans. 624	Wis. 296	N. D. 118
Wash. 558	Minn. 289	Del. 45
Mich. 555	Nev. 284	
Ind. 551	Wyom. 282	

As number of species per thousand square miles, the above data may be expressed as follows:

D. C. 6657	Ohio 12	Tenn. 5
R. I. 97	Colo. 10.5	Wis. 5
Mass. 90	Mich. 10	Idaho 4
N. J. 87	Ariz. 9	Ky. 4
Conn. 64	Ga. 8	Miss. 4
N. H. 46	Kans. 8	Tex. 4
Md. 44	Wash. 8	Minn. 3
N. Y. 25	Calif. 7	Nebr. 3
Del. 19	Iowa 7	Nev. 3
Pa. 17	S. C. 7	S. D. 3
Ind. 15	Utah 6	Wyom. 3
Va. 15	La. 5.5	Ark. 2
Fla. 14	N. M. 5.5	Mont. 2
Ill. 13	Ore. 5.5	N. D. 2
Maine 13	W. Va. 5.5	Okla. 2
Vt. 13	Ala. 5	
N. C. 12.5	Mo. 5	

Among the last half (24) in both the above tables are the following twenty States: Iowa, S. C., La., W. Va., Ala., Mo., Tenn., Wis., Ida., Ky., Miss., Minn., Nebr., Nev., S. D., Wyom., Ark., Mont., N. D., and Okla.

Only three States, N. Y., N. J., and N. C., have comprehensive published State lists which offset the above figures. Some have published lists of several orders or large families; among these are Ohio, Conn., Ill., Kans., Colo., and Iowa.

It was especially difficult to find papers on Lepidoptera in which detailed distributional data is given. There are, however, many State lists of butterflies.

No significant variation was seen between the various orders. It is believed, therefore, that the figures reflect to a large extent the relative amount of collecting that has been done in each State.

If the data be plotted on a map it will be seen that a broad band of nearly "virgin territory" exists from West Virginia through Kentucky, Tennessee, Mississippi, and Arkansas, to Oklahoma, all of which are areas of rich faunal content. A little collecting in these States would yield data of much zoogeographical significance.

Another and more extensive pallid area on the map would extend inclusively from Wisconsin to Idaho and take in Nevada, Montana, Wyoming, both Dakotas, Nebraska, Minnesota, Iowa, and Missouri. In the extreme east Delaware has hardly been touched and among the New England States Vermont has remained aloof.

It is hoped that the data here presented will influence to some degree the choice of collecting sites. However, the insect fauna of even the best-collected States is far from thoroughly known and activity there should not be lessened.—George C. Steyskal.

From Peru comes a request for information to be used in compiling a "Gazetteer of Entomological (or Zoological) Stations in Peru." The names of collectors who visited Peru are wanted and information on their routes, data and experiences regarding their localities that may be of use to subsequent collectors, and references to any published records of their trips and collections. Address: Jaroslav Soukup, Box 999, Lima, Peru.